

HiTech

HiTECH PROVIDES THE CURE

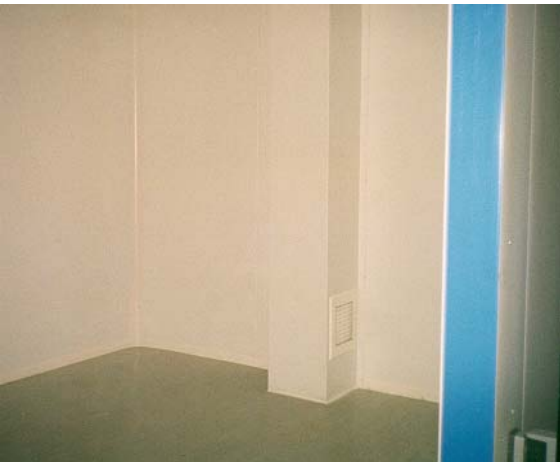


SCOTTISH
SOCIETY
for
CONTAMINATION
CONTROL

When Schering-Plough Ltd developed a new pastille to treat mouth ulcers it became evident that they needed to solidify the pastilles rapidly if production was to proceed at a reasonable rate. The normal method of exposing the product to high temperatures to drive off the excess moisture resulted in the formation of bubbles within the pastilles and this was totally unacceptable.



The solution provided by HiTech Controlled Environments Ltd resulted in the construction of what is probably the smallest Class 'J' clean room in Britain. HiTech's engineers designed a close control air conditioning system to absorb moisture from the pastilles at a steady rate while maintaining them at normal room temperatures.



A room was constructed using laminated insulated panels that not only have a high thermal insulation value but also provide an excellent vapour seal. The door in such a structure is the only weak point and this is fitted with magnetic rubber seals. A desiccant wheel dehumidifier is used to dry the air to below 4 grams per kilogram moisture content and a small cooling system is incorporated to counter the heat input from the dehumidifier. The supply air is filtered through three stages to achieve Class 10,000 within the room and the supply air volume is constantly monitored and adjusted to compensate for the filters as they become blocked.

Access to the room is controlled and at commissioning Class 1,000 certification and a moisture content of 2 grams per kilogram of dry air was achieved; temperature is controlled to $\pm 0.1^\circ\text{K}$ which is necessary if accurate control of moisture content is to be attained. The room currently has a through put of 43,000 pastilles per day.

Room Temperature

